DOCUMENT RESUME

ED 377 675 FL 022 399

AUTHOR Kitao, Kenji
TITLE Individualizing English Instruction Using Computers.
PUB DATE Mar 94
NOTE 26p.
AVAILABLE FROM Institute for Language and Culture, Doshisha University, Tanabe, Kyoto 610-03 Japan.
PUB TYPE Guides - General (050) -- Journal Articles (080)
JOURNAL CIT Doshisha Studies in English; v62 p167-190 Mar 1994

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Classroom Techniques; *Computer Assisted Instruction; Cross Cultural Studies; *English (Second Language); Foreign Countries; Higher Education; *Individualized Instruction; Secondary Education; *Second Language Instruction; Student Attitudes; Student Evaluation; Teaching Methods
IDENTIFIERS *Japan

ABSTRACT

This paper examines differences between approaches to instruction in Japanese and American classrooms and the need for individualized English instruction in Japan. Traditional classroom techniques in Japan have emphasized treating all students the same, whereas American techniques, especially since the 1970s, have placed a growing emphasis on individualized instruction. The expansion of computer technology into classrooms has contributed to the rise of computer-assisted individual instruction (CAII) in foreign language programs. CAII is especially well-suited for Japan, where secondary and college students studying English as a Second Language (ESL) have varied preparation and skill levels, perform only those tasks assigned by the instructor, and are resistent to studying English independently. The strengths and weakness of CAII are examined, and the facilities, materials, and personnel necessary for its implementation are discussed. Student evaluation methods are also addressed, and a trial use of CAII in a Japanese ESL classroom is reported. Contains 34 references. (MDM)

**********
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
**********

『同志社大学英語英文学研究』62号（1994年3月）

ED 377 675

# Individualizing English Instruction Using Computers[1]

Kenji Kitao

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Kenji Kitao

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☒ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

1994年3月

同志社大学人文学会

Doshisha Studies in English
No. 62 (March, 1994)
Institute for Language & Culture
Doshisha University
Tanabe, Kyoto 610-03 JAPAN

FL022399



BEST COPY AVAILABLE

# Individualizing English Instruction Using Computers[1]

Kenji Kitao

## Introduction

English education in Japan from junior high through college has been criticized by teachers, students, parents, and administrators. Among the major criticisms is that even after several years of instruction, students have difficulty using English for communication. In college English courses, students are often uninterested in textbooks, and some feel that the classes are too difficult, uninteresting, useless, impractical, etc. Recently, in accordance with changes in the Ministry of Education's regulations for colleges, many colleges are changing their English curriculum.[2]

In this paper, I will discuss the differences in approaches to instruction in Japan and the United States; the need to individualize English instruction; what individualized instruction is; necessary equipment, materials, and personnel for individualized instruction; individualizing instruction using computers; and advantages and disadvantages of using computers in individualized instruction.

## Differences Between Approaches to Instruction in Japan and the United States

Judging from my experiences as a student and a teacher in both Japan

and the United States, there are major differences in approaches to instruction in the two countries. One of the major differences is the attitude toward the students as individuals. In Japan, all of the students in a class are treated the same. The same information is given to all students, and everyone studies in the same way. The same rules are applied to all students, and exceptions are made in very few cases, such as injury, sickness or a death in the family.

In contrast, classrooms in the United States are more individualized. All students expect that they will be treated as individuals. Instructors are expected to increase the abilities of individual students and cover their weakness. When I taught in the United States, just taking attendance in the first class was chaos, because students told me whether to call them by their first names, nicknames, or middle names and corrected my pronunciation of their names. Even though the rules of the class were made clear, students brought many problems to me, and insisted that exceptions should be made for their situations. It was important to listen to them and handle each case separately, so I could not apply the rules the same way all the time.

Approaches and goals of classes in Japan and the United States also seem to be very different. In Japan, students are expected to learn the information from their textbooks and the teacher's lecture. This approach puts a great emphasis on memorization and on knowing facts.

In contrast, in American education, developing creativity is more important than memorization. More emphasis is put on enjoyable learning activities than in Japan. Students learn using games, simulations, and activities as well as textbooks and other traditional resources. When I was a graduate student, I tutored an elementary student in reading as a part of a

class on teaching reading at the elementary level. I was told not to explain anything to the student but rather to prepare games or activities through which he could learn (Kitao, 1976).

**Individualized Instruction**

Individualized instruction in foreign language teaching was the most observable trend in foreign language education in the United States in the 1970s (Altman, 1972), and, in part because of the approach to education that Americans take, Americans have been especially receptive to the idea of individualized instruction. Many articles and books were published on the subject, and many graduate students in the TESOL program in which I was enrolled in the mid-1970s wrote master's theses on individualized instruction. In the 1980s, the growth of individualized instruction slowed, but there continued to be much interest in it, and in 1986, more than 100 American universities had individualized instruction programs, and 200 more were interested in developing them (Harlow, 1987).

**Computers and Individualization**

Computers were considered ideal for use in individualized instruction. At the University of Illinois, a program called PLATO was developed. It included a huge amount of instructional material, and it was sold both in and out of the United States. However, computers were very expensive at that time, and so not many schools could afford to buy the hardware necessary to use it (Thrush & Thrush, 1984).

In the 1980s, personal computers became much more widely available and less expensive, and many schools purchased them for use in classes (Dunkel, 1987). The most common personal computers were the Apple

series. Many educational programs were available, and there were also many programs made by instructors. Such teacher-made computer assisted instruction (CAI) programs were very popular at the TESOL conference in Toronto in 1983 (Kitao, 1983), and many teachers brought the programs they had made and demonstrated them.

In Japan, personal computers became more widely available in the latter half of the 1980s. Foreign language CAI became more common. However, it is questionable whether computers are being used effectively to meet individual students' needs.

## The Necessity of Individualizing English Instruction in Japan

In Japan, most students start studying English when they begin junior high school. However, within a year, their levels of English proficiency already vary, and as time goes by, such differences become larger. At the college level, very few, if any, English classes have students who all have the similar levels of proficiency. Most college English classes have students who vary widely in English proficiency (Kitao & Miyamoto, 1982; Kitao & Miyamoto, 1983; Kitao & Yoshida, 1985; Kitao, Kitao, Yoshida & Yoshida, 1985; Kitao, Yoshida, & Yoshida, 1986; Yoshida & Kitao, 1986). Thus, it is difficult for teachers to determine the level at which they should target their English classes. Some classes include returnees from English-speaking countries or students who have gone overseas for short periods of time as well as some foreign students from non-English speaking countries whose English proficiency is very low. Therefore, at minimum, we need individualized instruction for very low and high proficiency students.

College students' interests also vary a great deal. Whatever materials are used in a class, some students will not be interested in them. I have given students surveys of their interests, and the results indicated that their interests varied a great deal. When I asked students what kinds of materials they wanted to use in class, I could not find any single topic or skill most of them wanted to study. Thus, I have concluded that materials which include a variety of topics are good. In recent years, more textbooks have been produced which have different topics and types of readings in each chapter. In contrast, ten or fifteen years ago, the commonest type of textbook was one with excerpts from a single British or American book. The number of textbooks with a variety of topics are increasing a great deal, and publishers have told me that they are in constant demand.

No matter what textbooks are used, if they are chosen by the teacher, the students feel that they do not have control, and this reduces their motivation to study (Kitao, 1989; Kitao, Yamamoto, Kitao, & Shimatani, 1990). One study used graded readers that students could choose from the library, allowing students to pursue topics that they themselves chose. The results indicated that the students enjoyed reading for this assignment, since they could choose books themselves rather than reading one that was chosen by the teacher (Kitao, 1989; Kitao, Yamamoto, Kitao, & Shimatani, 1990).

The amount of time required to read a given passage or do a given set of exercises varies more than the English proficiency of the students (Kitao & Miyamoto, 1982; Kitao & Miyamoto, 1983; Kitao & Yoshida, 1985; Kitao, Kitao, Yoshida & Yoshida, 1985; Kitao, Yoshida, & Yoshida, 1986; Yoshida & Kitao, 1986). When students enter Doshisha University, their reading speed is between 50 and 100 words per minute. In my CAI

classes, I keep records of students' scores and the time they spent on each exercise, and those records indicate that the slower students spent three times as much time as the faster students. In some cases, the slowest student in a class would spend ten times as long as the fastest student. Therefore, if we do exercises in class, the fast students have to wait a long time and the slow students have to hurry to finish. This is not conducive to learning. Students should work at a little faster than their normal pace to improve their fluency.

In general, Japanese students just follow their teachers' instructions and do not study English independently. They just come to class, sit down and do whatever their teacher tells them to do. They need to be more actively involved in their own learning and to take more responsibility for themselves. If they are responsible for whatever they have to do, they do fairly well. If I tell them what to do and how to do it in a group or by themselves, then they work hard.

As I have discussed, each class has a variety of levels of English proficiency, a variety of interests, and a variety of paces of studying. It is difficult or impossible to adapt English classes to students' levels of English proficiency, interests, and pace. In addition, students tend to be passive. For these reasons, we need to both individualize the study of English and make students take more responsibility for their learning in order to get more effective results.

## What is Individualized Instruction?

I have referred to the individualization of instruction a number of times, and now I will discuss its definition. It is not a method or technique but philosophy of education (Altman, 1972). Individualized instruction means

giving suitable instruction to each student. It is not teacher centered, and different students learn using different methods and at different paces. It is student-centered education, and its purpose is helping students learn what they need using their own learning style and at their own pace (Altman, 1972).

**Areas of Individualization**

Altman (1972) discusses three areas of individualizing instruction: objectives or goals of learning, method and pace. These three areas can be combined to different degrees in different classroom situations (Logan, 1980).

**Objectives.** Individualizing objectives is the most extreme form of individualization, because the objectives that student have will influence every area of learning, including the methods that students use and the pace at which they study. Instead of all of the students working toward the same goal using the same method at the same pace, all of these will be different for each student. The teacher would essentially be a tutor to each of the students.

**Method.** Individualizing a method of study also has great effects on the classroom. If methods are individualized, students use different materials in class. Students might use only tapes, only books, or both. Students who are using books might use different types of books.

**Pace.** Individualizing pace of learning is probably the easiest of these three. Students who work quickly can go on more difficult levels of materials, work on parallel materials of the same level to reinforce what they have learned, or work on materials related to different content. Slow students can study at their own pace and make sure that they are learning the material thoroughly. It is relatively easy to individualize pace, but extra

materials are necessary.

**Content.** In addition to these three areas of individualization, I propose two more: content and levels of English. If content is individualized, students have a choice of the content of the material that they study. Within the general area of American culture, for example, some students might be interested in studying American history, and others might want to study daily life in the United States.

**Level of difficulty.** When level of difficulty is individualized, students with a high level of English proficiency can use more difficult materials, while students with a lower proficiency can use easier materials. If there are various levels of difficulty for parallel materials, students can choose the best level for themselves–material that is slightly higher than their level of proficiency (Skinner, 1968). In order to provide this, a great deal of material is necessary. Students can choose the level of material that is suitable for them rather than having to struggle with material that is far too difficult or skimming quickly over material that is far too easy.

**Comparison of the Types**

Of the five kinds of individualization, individualizing pace is easiest, because all that is required is extra materials for students who finish quickly. Individualizing levels is also relatively easy, if there are parallel materials available. Similarly, individualizing content is not difficult if students have access to materials on various topics. Individualizing methods is difficult if many different methods are used, but it may be feasible to give students a choice among two methods. Individualizing objectives is the most difficult type of individualization, because it influences all four of the other types of individualization–method, content,

level, and pace. Unless the teacher has one or more assistants, it is particularly difficult to individualize content, objectives or methods in the ordinary language classrooms.

**The Role of the Teacher**

The objectives of individualized instruction are not determined by students' needs, interests or hopes alone. The goals are agreed on in consultation with the teacher, as the student and the teacher together decide what the student should learn and ascertain how the student's goals can best be achieved (Jenks, 1981). For example, low level students may want to try difficult material, and the teacher needs to decide whether that is feasible. The method and content have to be discussed between the student and the teacher in order to find the best way of reaching the student's goals. The teacher has to check what each student is doing, and as necessary, reconsider with the student the goals, methods, content, level, and pace. Thus individualized instruction is not totally independent. If it were, students could just study by themselves, as in a study hall. Teachers and their assistants have the responsibility to help each student find the best way to learn, to help them with their work, to check their work, and to guide them to more effective learning (Benmaman, Moore, Morgan, & Rowe, 1982).

## Effects of Individualization

If the objectives of foreign language instruction were individualized, what would happen in the classroom? First of all, each student would receive an appropriate education. Students would learn what they needed to know, based on their goals, interests and proficiency. They would study

according to their own learning style and at a pace which was comfortable for them. They would not be given instruction that did not suit them. Even if a class cannot be completely individualized, it would be better to have some individualization of method, content, level or pace, because that would allow students to have at least some control over and responsibility for their own learning.

When students have individualized objectives, they learn how to learn a foreign language. They have to make their own goals and decide, along with the teacher, what to study in order to reach these goals. They have to discover the learning style that suits them, and they have to take responsibility for working toward their goals using that learning style.

In individualized instruction, each student has to actively participate in reaching his/her goal. Students cannot just sit in the class and kill time or passively listen to a lecture. They have to set goals, determine how to meet those goals, and measure their progress against the goals that they have set.

When objectives are individualized, learning is student centered, and the teacher assists them in pursuing their goals. Both the student and the teacher need to be aware of the student's goals, method, content, and pace of learning. Both the student and the teacher need to understand that the type of class they have is different from a traditional one. Otherwise individualized instruction will not be effective.

When objectives are individualized, affective aspects of learning also need to be considered. Students need to feel security and satisfaction in learning. Without considering this security and satisfaction, students cannot achieve all that is possible (Brown, 1991).

As I have explained, individualization is not a method or technique but

a philosophy of education. Rather than educating all the students in a class in the same way, it involves letting individuals decide, in consultation with the teacher, what is best for them. As teachers, we need to find the best methods for managing or administering courses that use individualized instruction. There is probably no single "best" method, so we need to find out how individualized instruction works in different types of classes and with different types of students.

## Individualized Instruction and CAI

Computers are very useful for individualizing instruction. In an ordinary classroom with one teacher, it is difficult or impossible for the teacher to respond to each student, to give feedback immediately, to be aware of each student's progress, problems, and weaknesses, making it difficult for individualized instruction to be effective. Computers are able to respond to the student, give information, and teach students (Otto, 1988). They can give exercises and immediate feedback about the student's answers (Church, 1986).

Giving immediate feedback is an important aspect of computer assisted instruction, since it allows students to evaluate their answers while the questions are fresh in their minds. It helps prevent them from repeating the same mistakes until they get feedback. Computers are always available, while the student is working, to give feedback, while a human teacher has to attend to other students and other tasks and may get tired or distracted (Church, 1986).

Computer programs have become very sophisticated and flexible. They can control the presentation of the materials according to the program, for example, by limiting the time available to read a text or answer a ques-

tion. They can control other equipment, such as CDs and laser discs, and present the students with letters, sound, and visuals.

Computers can be resource for studying, research and communication. They can be connected to databases, and students get various types of information from the databases. In a sense, students have access to their own library through their computers. Computers can also be connected to the computer networks through which students can communicate with others and exchange information. Students can also work on projects with people on the computer network, even if they are far apart.

Computers can keep records of scores, time spent on the computer, and the files students have worked on. Students can see the results of their work. Teachers can also see what individual students and entire classes are doing. They can use this information to determine the course of future instruction and see the problems that students are having.

Using the records computers keep, it is easy to evaluate individual students and the class as a whole, using statistical analyses. It is possible to see class average, ranking of the students, difficulty levels of questions, types of questions students have difficulty with, etc. These results are very useful for class instruction as well as for guiding individual students.

## Advantages and Disadvantages of Using Computers for Individualized Instruction

**Advantages**

The major advantage of individualized instruction is that each student learns according to his/her needs, interests, learning style, and English proficiency and at his/her own pace. If materials are systematized, each student can study only the materials that are appropriate for his/her goals,

etc., and can get the most benefit with the least effort and time. Students do not sit passively in class but actively participate in learning. They can get hints and feedback from the computer as necessary. They can understand how well they are doing and what they have achieved. They can study as much as they want, depending on the availability of the computer. Students can evaluate themselves, find their weaknesses, and work on them.

Using computers, a teacher can establish a learning environment where there is one tutor with one student. It is simpler and more economical than hiring the large number of teachers that would be necessary for such individualized tutoring. As computers continue to get cheaper, and more teaching materials are developed for the computer, individualized instruction will become even more economical and efficient.

**Disadvantages**

While the ideal situation for individualized instruction might be for a teacher to work one-on-one with a student, this is not usually feasible. Individualized CAI is much more economical and more practical, but it still requires facilities, materials, equipment, personnel, etc., and it is complicated to administrate (Olsen, 1980). Therefore individualized CAI is much more economical than one-on-one individualized instruction, but it is still much more expensive than ordinary education.

We do not yet know the best way to individualize instruction through CAI. Teachers are still looking for good ways to administer it. It is also necessary to train teachers to teach individualized CAI courses and make manuals for them to carry on classes. If teachers expect that computers will do their all work, the classes will not be successful.

Appropriate and well-organized materials are absolutely vital to individualized instruction, and these may not be available, requiring the teacher to develop materials. When teaching an English course through CAI using individualized instruction, it is necessary to have a variety of materials on different topics and of different levels, making use of different methods. Finding or developing these materials and organizing them in a way that students can easily find the ones that are appropriate to their interests, goals and levels of proficiency takes time and effort.

## What is Necessary for Individualized Instruction with CAI?

To use CAI effectively, it is necessary to have certain facilities, personnel, and materials.

### Facilities

To use CAI, special classrooms with computers are necessary. Since it is useful to be able to have the students study outside of class time, it is also important that these rooms be available and convenient for students to use, with the necessary study materials available. If possible, there should be staff members available who are familiar with not only the equipment but also with the teaching materials to help with technical problems.

### Materials

A wide variety of teaching materials must be available for effective individualized instruction. There should be materials for various purposes, such as reading, writing, listening, speaking, grammar, standardized tests,

business English, and conversations, depending on the purpose of the class and the goals that students have set for themselves, the interests and levels of the students, etc. All materials should have clear, concrete purposes so that students can choose the material they need or want.

**Content.** Teaching materials should cover a variety of content areas to meet students' needs and appeal to their interests. Some areas they might cover include daily life and culture in the United States and Britain, history, social problems, biography, geography, and various literary forms of English. Materials should be labeled clearly according to their content, so students can easily get access to the materials they need.

**Levels.** Materials should be available for different levels of difficulty. If possible, similar content should be available in materials for students of different levels of English proficiency. Students can choose one level, and if it is not appropriate, they can try easier or more difficult materials. Another possibility is to have students try samples of different materials to find out what level is best for them. Again, the materials should be organized in a way that students can find the level they are looking for easily.

**Important Characteristics.** Since students work independently, it is necessary that the materials have clear instructions. Good examples are also useful in helping students understand what is expected of them. If students do not understand the instructions, they obviously cannot work effectively.

Materials seem to be more effective if they are in a series rather than being completely independent of one another. In my experience, students spend a lot of time when they first use new material, but over time, they become more accustomed to the material and spend less time while doing

better work. A series of materials might be on different aspects of a related topic but have a gradually increasing level of difficulty.

The materials used for individualized instruction should allow the teacher to see how well and how fast students are learning, and they should also show the teacher what kinds of problems students are having. The types of exercises or questions students are having difficulties with should give an indication of what their weak points are, and either the computer program or computer manuals should direct students to materials that can help them with these weaknesses. This type of self-diagnosis helps students work more independently.

As I have explained, it is absolutely necessary that materials be organized in a way that students can easily find the ones that they need for their goals, interests, and English proficiency. Teachers will help students to choose the appropriate materials, but students need to be able to understand what they should study, too. Thus, there should be a guide to the materials that indicates their purpose, content, English level, the number of questions, the content of the questions, answers, maximum time and minimum score allowed, etc. Using this guide, students, teachers and other personnel can understand what the materials are and what materials would be appropriate for students.

**Personnel**

Students, teachers, assistants, and administrators need to understand what students are studying, how well they are doing, and how fast they are working. It is therefore useful to keep old computer records.

When students are working outside of class time, there should be someone in the computer room who could help them. He/she should know the

materials, programs, and equipment well and know what students are doing in each class. In a large university, such coordination is not easy, so it is necessary to carefully consider the organization of personnel. It is best if computer room staff members belong to the same department as the teachers who are teaching the classes. If they belong to other departments, they should have to have periodic committee meetings to coordinate and exchange information.

## A Trial of Individualized Instruction

I have been teaching English CAI classes since fall, 1988 (Kitao, 1991; Kitao, 1992a; Ishihara, Kitao & Yamauchi, 1992; Kitao, Ishihara & Yamauchi, 1992), seeking the best way to give individualized instruction to the students. The facilities and equipment available are not ideal, the software and teaching materials we use had to be developed inexpensively, and there are no assistants. The first thing I did in order to individualize instruction was to develop materials: typing, grammar, reading and understanding paragraphs, reading, writing, and special topics in English, such as traveling, living, and doing business in English-speaking countries. I made parallel materials with different levels of difficulty. Since I have made enough materials even for students who work very quickly, it has became possible to individualize learning pace. In each class, I assign work which all of the students are required to do and also make available some optional work which students who finish the assigned work early can do for extra credit.[3]

Now I have a very wide variety of materials to use for CAI,[4] and I can give students materials with same content but at different levels of difficulty. I have developed self-study programs, and students can adjust the

materials so they can study according to the conditions that suit them best, for example, by setting a minimum required score and the maximum time allowed, answering questions with or without hints and with or without being shown the correct answers after mistakes. If students are given choices, they feel more responsibility for their learning.

Using item-analysis programs and error listing programs, I can find the problems that individual students and the class as a whole are having. I can give advice to students about their weaknesses. Since most of the class is spent on students' individual learning, I am free to walk around the class, see how each student is doing, and give advice and encouragement. I have more personal contact with individual students in CAI classes than in ordinary English classes, and students are more satisfied with the CAI classes than with ordinary classes (Kitao, 1993b; Kitao, 1993c; Kitao, 1993d). I know most of the students in the CAI classes better than I know students in an ordinary class, and I get more feedback from them, too. Students also feel very close to me, and when former students see me on campus, they go out of their way to greet and talk to me.

So far I have been able to individualize CAI only partially, in the areas of content and pace. It is not easy to individualize objectives and study methods. It would be necessary to have teaching assistants and self-study rooms where assistants could work with the students. I also need to learn more about what kinds of help I should give to students, what advice I should give, and what the best way is to evaluate them in individualized CAI.

## Evaluation for Individualized Instruction

Evaluation in individualized instruction is based on what students have

learned when they are ready to be measured (Altman, 1972). If the pace is different, evaluation is given at different times. If the content is different, the evaluation itself should be different. If the methods are different, students should be evaluated based on the method in which they learned.

Evaluation does not just involve giving grades to the students. It should be a measure of how well they have learned, what problems they have, etc., and it should be used to help students adjust their learning in order to reach their goals (Logan, 1971). However, if individualized instruction is given as a class, the system requires that students be given grades.

It is not easy to grade students in an individualized instruction setting, since they may have different goals, methods, content, levels, and pace. It is necessary to find the best ways to evaluate such classes, but there is little consensus on the best way to do so (Logan, 1971). In fact, the act of giving a grade seems, in some ways, contrary to the idea of individualized instruction, since the point of individualized instruction is to have students do work that is appropriate for them. Some argue for giving partial credit, based on the amount of work accomplished (Logan, 1980); others argue for basing grades on the accuracy of the work; and still others argue that it would be in the spirit of individualized instruction to evaluate students on the consistency of their effort (that is, whether they are doing their best) rather than on the results (Logan, 1971). The drawback is that however attractive some of these proposals might appear theoretically, they are not necessarily practical.

Another possibility is to evaluate students according to how well they have done their work and how much they have improved. The contract method is good for this. In the contract method, students agree with the teacher in advance what they will accomplish, how well they will do, how

much material they will cover, etc. The evaluation is based on how well students fulfill their contracts. This method would be one possibility, though some students may object if students who set low goals for themselves are evaluated better than students who set high goals for themselves, so the teacher still needs to maintain certain basic standards.

In my classes, what I have done is to measure what percentage of materials students have covered and how well they have done. I give extra credit work, and if they do that, they get extra points.

I have kept records of all the materials students use in my classes. I plan to use it as a basis for calculating the difficulty levels of materials. Based on this information about difficulty levels, students can make plans for which materials they will study, and I can make a contract with each and evaluate their work based on the contract. Grading is very difficult, but it should be used to help students learn better. Teachers need to continue to investigate the best methods of grading for each situation.

## Summary and Conclusion

English instruction in the future will be much more varied than it is now. Students' needs and interest in studying English and their levels of English proficiency will be more different. Thus, we need to have a greater variety of courses and different levels of classes. It is still necessary to give appropriate instruction to each student and to individualize instruction to some extent. It is also useful to see what results students get and how much their English has improved. For these purposes, it is important to make classes smaller, but the number of teachers is limited, and therefore, computers are useful in individualizing instruction. However, there is still much to be learned about how to best individualize at different levels.

## Notes

1 This study was carried out with the assistance of Doshisha University Research Fund grants 1991-1992 and 1993-1994.

2 There was one session on changing English curriculum in college and eight cases were presented at thirty-second Japan Association of College English Teachers (JACET) conference held on September 8-10, 1993.

3 English reading CAI in 1991 is discussed in Kitao, 1992b and Kitao, 1993a.

4 The list of CAI materials I developed before March, 1993, is on the floppy disks attached to Edasawa-et al., 1992, and Nozawa, Shimatani, & Yamamoto, 1993.

## List of References

Altman, H. B. (1972). Individualized foreign language instruction: Ex uno plura. In H. B. Altman (Ed.), *Individualizing foreign language classroom: Perspectives for teachers* (pp. 1-14). Rowley, MA: Newbury House.

Benmaman, V., Moore, S., Morgan, G., & Rowe, P. (1982). Individualized Spanish at an undergraduate institution: Implementation and evaluation. *Modern Language Journal, 66*, 150-154.

Brown, H. D. (1981). Affective factors in second language learning. In J. E. Alatis, H. B. Altman, & P. M. Alatis (Eds.), *The second language classroom: Directions for the 1980s* (pp. 111-129). New York: Oxford University Press.

Church, D. M. (1986). Textbook specific computer exercises for elementary French students. *Modern Language Journal, 70*, 251-257.

Dunkel, P. (1987). Computer-assisted instruction (CAI) and computer-assisted language learning (CALL): Past dilemmas and future prospects for audible CALL. *Modern Language Journal, 71*, 250-260.

Edasawa, Y., Ishihara, K., Kitao, K., Mine, H., Saeki, N., Yamauchi, N., Yoshida, H., & Yoshida, S. (1992). *Hajimete no CAI: Yoriyoi eigo kyoiku o motomete* [Introduction to CAI: Seeking better English education]. Kyoto: Yamaguchi Shoten.

Harlow, L. L. (1987). Individualized instruction in foreign languages at the college level: A survey of programs in the United States. *Modern Language Journal, 71*, 389-394.

Ishihara, K., Kitao, K., & Yamauchi, N. (1992). Doshisha daigaku no eigo CAI [English CAI at Doshisha University]. In Edasawa, Y., Ishihara, K., Kitao, K.,

Mine, H., Saeki, N., Yamauchi, N., Yoshida, H., & Yoshida, S. (Eds.), *Hajimete no CAI: Yoriyoi eigo kyoiku o motomete* [Introduction to CAI: Seeking better English education] (pp. 211-235). Kyoto: Yamaguchi Shoten.

Jenks, F. L. (1981). Learners' needs and the selection of compatible materials. In J. E. Alatis, H. B. Altman, & P. M. Alatis (Eds.), *The second language classroom: Directions for the 1980s* (pp. 211-226). New York: Oxford University Press.

Kitao, K. (1976). Beikoku no shogakko ni okeru kokugo kyoiku [Language arts instruction at an American elementary school]. *Eigo no Mado* [Window of English], *157*, 18-21.

Kitao, K. (1983). Saikin no eigo kyoiku no doko [Trends in recent English instruction]. *JALT Newsletter*, *7*(6), 6-7, 11 & 12.

Kitao, K. (1989). Eigo no kobetsu dokkai shido: ESL kona no riyo [Individualized instruction of English: Using ESL corner]. *Doshisha Studies in English*, *49*, '37-160.

Kitao, K. (1991). Eigo CBI no kaihatsu: Doshisha daigaku no baai [Developing English CBI: The case of Doshisha University]. *Doshisha Studies in English*, *54*, 259-285.

Kitao, K. (1992a). Developing English CBI programs at Doshisha University. *The Doshisha Business Review*, *43*, 451-484.

Kitao, K. (1992b). Doshisha daigaku ni okeru eigo kodoku CBI no koka [Results of English reading CBI at Doshisha University] ( 1 ). *Doshisha Studies in English*, *56*, 358-393.

Kitao, K. (1993a). Doshisha daigaku ni okeru eigo kodoku CBI no koka [Results of English reading CBI at Doshisha University] ( 2 ). *Doshisha Studies in English*, *59*, 87-142.

Kitao, K. (1993b). Gakushusha no CAI jyugyo ni taisuru hanno [Responses of students to CAI classes] ( 1 ). *LL Tsushin* [LL Communications], *171*, 14-17.

Kitao, K. (1993c). Gakushusha no CAI jyugyo ni taisuru hanno [Responses of students to CAI classes] ( 2 ). *LL Tsushin* [LL Communications], *172*, 15-17.

Kitao, K. (1993d). Gakushusha no CAI jyugyo ni taisuru hanno [Responses of students to CAI classes] ( 3 ). *LL Tsushin* [LL Communications], *173*, 16-18.

Kitao, K., Ishihara, K., & Yamauchi, N. (1992). Developing teacher-made computer-based instruction (CBI) courses at Doshisha University. In I. Shinjo, K. Landhl, M. Macdonald, K. Noda, S. Ozeki, T. Shiozawa, & M. Sugiura (Eds.), *The proceedings of the second international conference on foreign language education*

*and technology* (pp. 115-124). The Language Laboratory Association of Japan and International Association of Learning Laboratories.

Kitao, K., Kitao, S. K., Yoshida, S., & Yoshida, H. (1985). Daigakusei no eigo dokkai sokudo no kenkyu [A study of college students' reading speed]. *Chubu-chiku Eigo Kyoiku Gakkai "Kiyo", 14*, 168-174.

Kitao, K., & Miyamoto, H. (1982). Daigakusei no eigo dokkairyoku–Chosa ni yoru ichi kosatsu [Japanese college students' reading ability–A study based on testing]" *Doshisha Studies in English, 30*, 135-165.

Kitao, K., & Miyamoto, H. (1983). Daigakusei no eigo dokkairyoku no mondaiten–Gotou no keikou to sui [Problems in college students' reading English–Trends and changes of errors. *Doshisha Studies in English, 32*, 118-147.

Kitao, K., Yamamoto, M., Kitao, S. K., & Shimatani, H. (1990). Independent reading in English: Use of graded readers in the library English as a second language corner. *Reading in a Foreign Language, 6*( 2 ), 383-398.

Kitao, K., & Yoshida, S. (1985). Daigakusei no eigo dokkairyoku to sono speed no kenkyu [A study of college students' English reading comprehension and speed]. *Chubu-chiku Eigo Kyoiku Gakkai "Kiyo", 14*, 28-34.

Kitao, K., Yoshida, S., & Yoshida, H. (1986). Daigakusei no eigo dokkairyoku no mondaiten–Gotou no ruikei to genin [Japanese college students' problems in reading English–Tendencies and cases in errors]. *Chubu-chiku Eigo Kyoiku Gakkai "Kiyo", 15*, 8-13.

Logan, G. E. (1971). Problems in testing, grading, and issuing credits in an individualized foreign language program. In H. B. Altman & R. L. Politzer (Eds.), *Individualizing foreign language instruction: The proceedings of the Stanford Conference* (pp. 225-237). Rowley, MA: Newbury House.

Logan, G. E. (1980). Individualized foreign language instruction: American patterns for accommodating learner differences in the classroom. In H. B. Altman & C. V. James (Eds.), *Foreign language teaching: Meeting individual needs* (pp. 94-110). Oxford: Pergamon Press.

Nozawa, K., Shimatani, H., & Yamamoto, M. (Eds.). (1993). *Computer riyo no gaikokugo kyoiku: CAI no doko to jissen* [Foreign language education using computers: Trends and practice in CAI]. Tokyo: Eichosha.

Olsen, S. (1980). Foreign language departments and computer-assisted instruction: A survey. *Modern Language Journal, 64*, 341-349.

Otto, F. (1988). Using the computer. In J. B. Gleason (Ed.), *You can take it with*

*you: Helping students maintain foreign language skills beyond the classroom* (pp. 70-91). Englewood Cliffs, NJ: Prentice Hall Regents.

Skinner, B. F. (1968). *The technology of teaching*. Englewood Cliffs, NJ: Prentice Hall.

Thrush, J. P., & Thrush, R. S. (1984). Microcomputers in foreign language teaching. *Modern Language Journal, 68*, 21-27.

Yoshida, S., & Kitao, K. (1986). 5tsu no dokkai test o riyoshita daigakusei no eigo dokkai sokudo oyobi rikaido no kenkyu [Japanese college students' English reading ability and speed—A study based on five tests]. *Chubu-chiku Eigo Kyoiku Gakkai "Kiyo", 15*, 183-188.